U.S. AMLR Program and National Science Foundation

2012-2013 Weekly Field Reports Copacabana, King George Island

Volume 7 November 26, 2012

Science Report:

1. Penguins: Reproductive monitoring of Adélie and gentoo penguins continues. Currently only 49 out of 100 Adélie penguin reproductive nests remain active. Gentoo penguin reproductive sites are doing much better comparatively with 93 out of 100 still active. Breeding Adélie penguins of known age show similarly poor active nest numbers with only 15 out of 36 still active while breeding gentoo penguins of known age show more promise with 56 out of 61 nests still active.

The first Adélie chicks of the season were observed at Copa in Castle Rocks South colony and in the Point Thomas colonies on Wednesday (11/28).

The census of gentoo penguins was completed on Sunday (12/2). There are a total of 5409 nests this year at Copa and a re-occupied colony at Point Thomas (where gentoos have not nested since the 2009/10 season). 5409 total nest is an increase of 523 nests from the 2011/2012 breeding season. Interestingly enough there are practically the same number of nests on Copa Beach this year as last, even though breeding on the beach was delayed due to the heavy snow load and many new colonies were formed up in the hills.

The first gentoo penguin chicks in our reproductive and non-disturbance plots were seen on Saturday (12/1), up in the hill colonies. The plots down in the Copa Beach colonies have all just completed their clutches and are now on the every 4 days "full nest check" schedule.

Chinstrap penguin E1 and E2 measurements were carried out at the Uchatka and Patelnia colonies on Thursday (11/29). As we did with the Adélie penguins, 50 nests were randomly selected with 2 eggs, then both eggs were weighed and measured. This year the measurements were slightly higher than the 20-year mean. Volumes for each egg were up by approximately 0.5 cm³. Weights for each egg also showed an increase of 2.7g for E1 and 1g for E2 (though these increases might be attributed to variable wind conditions year to year).

A census of chinstrap penguins at Demay, Uchatka, and Patelnia colonies was conducted on Thursday (11/29). Totals are similar to 2011/12 totals with 975 occupied nests this year compared to the 971 nests of last year.

No additional chinstrap penguin GLS tags were recovered from the Uchatka colonies

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2. Skuas: Regular checks of the Copa skua breeding territories continue. This week we found our first brown skua egg at Copa on Wednesday (11/28). The territories known as Hut, Castle Rocks, Polish Meadows, and Mount Tam/Petrel all laid their first egg this week.

The Demay and Patelnia skua routes were completed on Thursday (11/29). The majority of territories still appear to be vacant though an additional 3 south polar skuas and 3 brown skuas were resighted on non-penguin territories.

The second backcountry skua trip of the season was completed on Saturday (12/1). The trip was, like last week, another orientation for new crew members as the skua routes generated only three resights, a pair of brown skuas, and a single south polar.

The Point Thomas skua routes were conducted on Wednesday (11/28) and Sunday (12/2) resulting in an additional 3 active brown skua nests. There is a slow increase in territory holders seen each week as the snow continues to melt.

Two GLS tags were retrieved from the Territory 29 brown skuas at Point Thomas. Additional measurements, weight, and breast feathers were also taken. Both birds returned promptly to the nest for incubation.

- 3. Sheathbills: Only one sheathbill was seen in and around Copa Rock this week, and there is still no sign of our banded breeder from last season.
- 4. Whales and Seals: Humpback whales continue to be observed feeding and traveling in Admiralty Bay. Two whales were seen on Tuesday (11/27) traveling into Admiralty Bay and an additional whale was seen in the near shore waters off Arctowski on Saturday (12/1).

The Demay and Patelnia seal route, carried out on Thursday (11/29), yielded 137 juvenile/unknown sex elephant seals, 77 weaner elephant seals, 1 large male and 2 Weddell seals. The Copa and Point Thomas seal census, carried out on Sunday (12/2), yielded 15 juvenile/unknown sex elephant seals between Arctowski and the Sphinx and one large male.

There were also two leopard seal attacks observed on Tuesday (11/27), though prey species was unknown.



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5. Other: A king penguin was observed at Point Thomas on both Wednesday (11/28) and Sunday (12/2) mingling with Adélie penguins at the Adélie Beach colony.

Weekly Weather:

This week's weather proved very comfortable as we had two consecutive sunny days, Tuesday (11/27) and Wednesday (11/28), with little to no wind. Thursday (11/29) was the exception, with winds and colder temperatures. We finished the week with more below freezing weather and have, once again, lost our running water to frozen pipes.

Camp Activities:

A surprise visit from three zodiacs arrived on Copa Beach on Tuesday (11/27) afternoon carrying biologists and others from the Argentine Base Carlini conducting seal surveys. The visitors made a quick tour of Copa facilities, took photographs, and departed.

We used our sunny days to fill up our water barrels by tossing copious amounts of snow onto the roof for collection via our gutter system. We have also commenced efforts to bleach the freshies room before our resupply arrives. The ceiling has had all white fuzzy growth removed, next up... the shelves.

The 2012-12 Copa Field Team:

Matt Henschen, Co-Field Team Leader Brette Soucie, Co-Field Team Leader Caitlyn Bishop Ana Bertoldi

